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ABSTRACT

All areas in mass communications (i.e., newspapers, magazines, television, radio, films, photos, and books) will be transformed because of the increasing sophistication of computer users, the decreasing costs for interactive computer systems, and the global adoption of integrated services digital networks (ISDN). ISDN refer to the digitization of data, voice, image, and eventually movies stored in mainframe or microcomputer and transmitted or retrieved through a fiber optic network interconnected with anything and everything electronic. Because ISDN coupled with computers will not only change established media, but create new media, how advertising will change must be systematically studied in terms of: (1) the impact of the inevitable emergence of the new media and new professions; (2) advertising databases and their effects on the advertising and marketing practices; (3) the marriage between news and advertising and the probable wedding between broadcast and print media; and (4) the ramifications of electronic news publishing, advertising database systems, and the eventual globalization of communications. The new-tech environment is bringing about a future in advertising that will create a new media, new advertising, and new professionals. (MS)

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Peering into the Future of Advertising

Abstract

After Examining the inevitable emergence of a global integrated digital services networks (ISDN) and the home administration, communication, education, and entertainment systems (HACEES) based on microcomputers, this paper explores the future of advertising when advertising/commercial database systems (ACDS) are in place and the marriage of advertising and news is consummated. Contrary to the popular notion, the future of advertising is evolutionary rather than revolutionary.

I. Introduction

All areas in mass communications (i.e., newspapers, magazines, television, radio, films, photos, and books) will be transformed because of the increasing sophistication of computer users, the decreasing costs for interactive computer systems, and the global adoption of integrated services digital networks (ISDN). ISDN refer to the digitization of data, voice, image, and eventually movies stored in mainframe or microcomputer and transmitted or retrieved through fiber optic interconnected with anything and everything electronic. The transformation can be partially seen from the Teletel system in France, an interactive videotex system which has grown in four years (1983-87) to more than 6,000 information services for more than three million business and individual users (Roulet, 1987). Teletel and other videotex systems are emerging as parts of global new media, a development as significant as, and perhaps more important than, the inventions of printing and computer. Advertising is a media-oriented and media-based industry--it changes as media change. Because ISDN coupled with computers will not only change established media, but create new media, how advertising will change must be systematically studied in terms of (a) the imact of the inevitable emergence of the new media and new professions; (b) advertising databases and their effects on the advertising and marketing practices; (c) the marriage between news and advertising and the probable wedding between broadcast and print media; (d) the ramification of electronic news publishing / advertising database systems and the eventual globalization of communications. A database is a data bank from which information can be retrieved according to the user's specifications. ISDN, denounced as the Integrated Services Dreamed Networks, have now progressed to broadband ISDN (B-ISDN) which can offer four categories of services:

1. Dialogue (interactive) services:
   a. Video communication (telephony, teleconferencing, surveillance, and communication.)
   b. Data communication such as high speed data transmission, high volume file transfer, computer aided service (CAD/CAM), real time control, and telemetry.
   c. Document communication such as high speed facsimile and document communication.
2. Messaging services: picture mail and document mail services (texts, graphics, images, moving pictures).
3. Retrieval services: videotex services and retrieval systems for data, graphics, film, or any stored information.

4. Distribution services: nonuser and user controlled radio, TV, high definition TV (HDTV), 3-dimensional TV (3DTV), pay TV, electronic publishing, and videography (teletex and cable text). (Franco, 1987)

Today readers can read at home on the screen articles published in many publications which have been databased for retrieval. They are able to retrieve those articles ads they are interested in, instead of laboriously going through each and every page. If readers wish to keep an article for future reference, they may either store it in the computer disk or print it out. In the near future, TV viewers can select programs they like to watch at the time of their own choice, if the TV channel has digitized its video programs and distribution that can be down-loaded (down-loading is a device to transmit a program in bulk rather than sequentially over the transmission line to be stored and shown later).

None of these will happen overnight, but all necessary technologies are already in place. The emergence of new mass media is not a question of "if" but "when. "When" might be sooner than we expect because of the exponential drop in prices of ISDN components and of the attractive revenue to the entrepreneurs. All mass media depend upon advertising revenues for their survival. With established media, an advertiser or advertising agency must go through many laborious tasks of marketing segmentation, targeting, creative work, production, scheduling, and sundries of other chores just to advertise. An interactive advertising system would drastically simplify all routine tasks for the advertiser and allow the users to dictate what ads or categories of ads they would like to see at the time of their own choice.

This is made possible because of two parallel developments: (a) the emergence of interactive computer systems (i.e., computers with external communication devices); and (b) the ever-increasing number of database services. Both will fundamentally change mass media and advertising professions within the next two decades.

II. New Media, New Advertising and HACEES

The combination of the home computer, interactive TV, telephone, and databases that may be called the Home, Administration, Communication, Education, and Entertainment Systems (HACEES) will eliminate all inherent drawbacks of TV, radio, newspapers and magazines (Hsia, 1988), and create a large number of new professions and new jobs. Like ISDN, HACEES is an all-inclusive term and may be called the new medium; however, the term "new medium" or "new media"

can be anything from a videotape recorder, HDTV, 3DTV, teletex, and videotex to satellite broadcast (Singleton, 1986). Nevertheless, new media are defined here generically as an interactive communication system called HACEES. HACEES can be a microcomputer linked the telephone with an external database offering information services, and will progress in the near future to a versatile system connected with all electronic and electric devices in a global ISDN. HACEES, therefore, can perform the functions of:

1. Administration: Controls of home security, temperature, lights, air conditioning, heating, moisture, fire detection, cooking, making coffee, baby monitoring, and others.
2. Communications: Communicating with databases or videotex services, including banking, home-working, airlines ticketing, weather stations, home-shopping, teleconferencing, and others.
3. Education: Correspondent courses, regular courses, trade courses, hobby lessons, foreign language lessons, and others.
4. Entertainment: TV/radio programs, movies, games, chess, and others.

What can be made available to HACEES can be so designed as to do away with all disadvantages of established media, for example, (a) to present on-demand information that can be readily retrieved, used, and stored; (b) to retrieve any information randomly in contrast to sequentially presented media; and (c) to have access to thousands of databases that provide news, commercials, ads, education, entertainment, or other information.

A. Ads and Commercials Database Systems (ACDS)

The New York Times, Wall Street Journal, Washington Post, and many other newspapers as well as database operators such as SOURCE and COMPUSERVE have already offered videotex systems from which articles published by a host of newspapers can be retrieved. Eventually, classified and retail ads will be incorporated into various database systems with which many publishers have been experimenting in the 1980s. Now digitized audiovisual information is a reality; therefore, both TV and radio commercials can be eventually incorporated into database systems which are advantageous to the advertisers:

1. Advertisements and commercials database systems (ACDS) can create and update ads as easily as touching a few keys, to illustrate prices, product/service features, delivery, discounts, and credit terms. In fact, ACDS will eliminate the

time-consuming and expensive layout, type-setting, and printing for the print media; and it will obviate production, scheduling, and numerous other chores for the broadcast media.

2. ACDS are the materialization of the ultimate rifle approach every advertiser dreamed about but never realized until now. ACDS users who request information are POTENTIAL buyers of the product or service advertised as they are actively seeking information. Or at least they are interested in the specific product or service in contrast to the passive recipient of established media.

3. ACDS allow an ad and commercial to appear or to remain indefinitely in the system at a cost much less than that charged by conventional media. They permit the deletion, addition, change, enlargement, or condensation at minimal cost. They require minimal chores and time for the creation, scheduling, re-scheduling, revision, and withdrawal. In sum, they offer such flexibility, convenience, and low cost for both advertisers and users that no other medium can match.

4. ACDS can group ads and commercials as the user specifies; for example, the prices, years, models, makers, horsepower, number of cylinders, colors, and engine displacement for automobiles; or the size, style, number of rooms, baths, utilities, garage, principal, mortgage, taxes, insurance, and interests for houses. In fact, ads or commercials can be categorized and subcategorized by any criterion; hence, they can be cross-indexed, sorted, and compared. They may prove to be the ultimate form of advertising.

5. ACDS can be linked with marketing/advertising experiments and tests so as to provide instantaneous analysis of product popularity, advertising effectiveness, and marketing success.

All these are based on the assumption that home computers will be widely adopted. Although many households have a computer, they are mostly used for entertainment or word processing rather than for communication. A much wider adoption rate can be expected because microcomputer prices are steadily declining and videotex services are offering more and better varieties of information. An inexpensive microcomputer with an external communication device (modem) costs less than a large-screen color television receiver. In the near future, many tasks of home administration,

communication, education, and entertainment can be taken over by HACEES linked with ISDN accessible to all videotex and teletext services around the globe. The eventual success of HACEES is a certainty, as demonstrated by the phenomenal popularity of the French Teletel system, the government-sponsored videotex system using the plain old telephone system (POTS) with the Minitel terminal.

B. Advantages of HACEES

Without government support and with court-decreed restrictions on telephone utilities, the popularization of HACEES in this country, however, may depend on two other factors: (a) the global adoption and expansion of ISDN and B-ISDN, and (b) the offerings of a variety of information services and the unrestricted entries of third party services (i.e., any services offered by a third party other than the information database operator and user). As more households install home computers, ISDN can be accomplished without government subsidization. As more home computers are available or accessible, database systems will include more varieties of information for the public. The revenue for ISDN operations, facilities, and services in 1987 is a staggering 10.5 billion dollars (ISDN, 1987), for a share of which third parties can be expected to offer services not yet heard of. Offering enormous advantages to the users, HACEES when popularized will even overshadow the phenomenal rise of TV a few decades ago. Just to name a few of the advantages to the HACEES users:

1. HACEES is not restricted to any schedules. Instead of being dictated by broadcast schedules or publication dates, users can have access at any time to databased information. They are transformed from passive information recipients to active information seekers.

2. HACEES is not limited by geography as long as it can be linked to a database system anywhere, London, Beijing, New York, or Cairo. A global information network system will eventually emerge.

3. HACEES obviates the synchronization of time for information retrieval and supply. Activated at any time, it enables conference attendants, for example, to attend such a teleconference at any time, to receive all previous discussions and reports, and to transmit their own.

4. HACEES provides specifically requested information on merchandises, political/social events, sports news, services, and others, for example,

comparative shopping can be done at the user's fingertips. The ever-changing weather information, road conditions reports, and traffic situations are readily available. No information is beyond its reaches, provided that such a videotex service exists.

5. HACEES stores or prints out, if desired, retrieved information, and thus enhances its versatility and referability. Furthermore, all information through HACEES may be grouped, compared, and analyzed so as to provide it with testability.

At this stage, the drawbacks of HACEES vis-a-vis the present form of news and advertising are equally obvious: (a) no random exposure is possible. A reader of a newspaper or magazine may be randomly exposed to news articles and advertisements. However, it may be argued that no article or ad is designed for a random reader, as every article or ad has its intended target; (b) at least at this stage of the HACEES development, no free full-fledged services of news, ads, and other information have been offered to the public. However, it can be expected that within a few short years after HACEES is popularized, full services would be offered, as demonstrated in France, and probably within a year or so in Japan, Britain, and Singapore as well; and (c) HACEES is still difficult to use and expensive, particularly when long distance telephone tariffs are involved. Difficulties in its use, however, may disappear as many innovative steps can be taken to simplify both hardware and software. Although costs have been steadily lowered for the users, the required investment is still phenomenal for the videotex operators. Nevertheless, HACEES will take over many functions mass media perform today in disseminating news, ads, and commercials. Furthermore, HACEES can be used to obtain programmed instructions, computer assisted instructions, and education, not to say playing games.

III. Advances to ACDS and HACEES

New technology introduces new modes of communications but the quantum jump in future communication growth may be the result of the easy availability and user friendliness of videotex or interactive databases. Similar to supermarkets or department stores where almost everything can be had, databases today can cater to every whim and desire. More than 6,000 databases are in operation throughout the United States and Canada. Files can be integrated in databases so that users of diverse interests may secure desired information, generate different reports, and satisfy various needs. About 95 percent of the databases in the United

States can be accessed by microcomputers. Due to the drastic drop of computer costs, adoption of databases has been proliferating mainly because of:

1. The economies of eliminating duplicated storage of information;
2. The ease of finding and analyzing necessary information;
3. The freeing of programming time and labor;
4. The combination of all kinds of information into one database. For example, a newspaper may combine news, editorials, advertisements, advertising accounts, and billings into a huge database.

A. An Evolutionary Progress

Newspapers and magazines are gradually being computerized in the form of electronic reporting, editing, and publishing. Electronic editing and publishing have been extensively experimented, classified ads database systems planned and implemented, and digitized video and audio broadcasts gradually perfected, even though newspapers and magazines still are delivered on wheels or by hands. There is no escape that all communication media are facing a drastic change as stimulated by ever-newer technologies. Consequently, advertising as a profession and as an academic discipline will be forced to undergo a rapid change. In contrast to other professions and disciplines, the substance and form of advertising education are determined by the media. Advertising practices must change in phase with technological advances.

To create databases is a costly proposition, and to match to the advertising utopia is still hazardous, but lessons can be learned from successes and particularly failures in electronic publishing and ad database systems. Two major videotex operators, Gateway and Viewtron, failed (Two Vidiotex, 1986). CBS has withdrawn from the joint venture with IBM and Sears in the Trintex system (Videotex Exodus, 1987). IBM and Merrill Lynch decided to close their joint venture of International Market-Net (Carroll & Swartz, 1987). However, corporate videotex systems in use in 1987 numbered 435, increasing to 840 in 1988, 1,500 in 1989, and 2,300 in 1990. (Spiegelman, 1986)

Tremendous wastes in manpower, time, and cost occur daily in advertising. A centralized mainframe computer with terminals and other peripheral systems interlinked to a local area network (LAN) and later a wide area network (WAN) can streamline the whole advertising operation and improve its efficiency and productivity--from ad creation, design, production, media planning, and media scheduling to evaluation.

B. From Electronic Editing to HACEES

Electronic publishing and advertising is successfully moving through three stages: (a) Electronic editing or on-screen advertising creation and designs; (b) Pagination or electronic layout, which requires a versatile computer with a number of terminals and appropriate software to edit, format, layout, compose, and display texts and advertisements with the capabilities of changing, rotating, and reversing types and fonts; and (c) Computer-to-plate which refers to the electronic production of any page directly from a computer to the press plate in any required font, type, size, style, and shade of letters and signs. After being paginated, all stories and ads are already databased so that editors can retrieve any story or ad.

Then it is no great task to allow the reader the same access to the database as the editor in what is known as electronic news or electronic publishing, commonly known as teletex and videotex. Teletex is simply an electronic bulletin board on which news and other information are displayed whereas videotex generally provides some interactive features so that users can have choices of the types of information they desire. At this stage no videotex has yet presented a sufficient variety of information on demand in the United States, but a host of information services are available to Teletel users in France. The pagination-to-HACEES process will be speedily materialized when the penetration of home computers with external communication devices reaches about 30-40 % of all United States households. Considering the inevitable emergence of new media, new advertising will emerge.

A cross-indexed classified ads system tailored to the interest of users is inevitably the form of ads in the future; classified ads first and then display or retail ads. Its growth will be proportionate to the growth of home computers. Classified advertising is now classified by major categories, adequate for the 19th century publications. Newspapers today carry thousands of classified ads so that a computerized database will be tailor-made for modern consumers in job-hunting, house-searching, and car-buying. Newspapers, cable TV, network TV, computer manufacturers, governments, major retailers, and universities all attempt to get into databased videotex for a variety of reasons. But for the consumer, a database system is simply either teletex or videotex. Because it lacks interactive capability, teletex is already technologically superceded by videotex which is, however, a costly proposition for the user in this country, as can be attested by users of the failed Qube, Gateway, and Viewtron. Many others still are venturing into the brave world of

videotex, but none have been very successful financially in contrast to the simple teletex, electronic mail, or bulletin board.

C. Lessons from Advertising Database Failures

Only one local advertising database system in Boston has been marketed successfully. Other database operators offer limited listings. The absence of advertising databases in this country may be traced to several causes: (a) most advertising professionals tend to ignore videotex systems; (b) computer professionals have not yet jumped on the bandwagon as they did in France; (c) advertising faculties either consider them academically ignominious or pay no attention to them; (d) costs are still too high and graphics too elementary for the limited services offered by databases; (e) no open access offered to the users who must subscribe to the service; and (f) no services offered by third party vendors who are the key factor in the success of Teletel.

Observing the phenomenal successes of Teletel, all these causes can be eliminated or reduced in their magnitude. A successful Teletel-like or better system can be implemented with: (a) inexpensive telephone terminals like the French Minitel which was given free as the seed; (b) a host of third party services, including La Messageries (chat) which is essentially an electronic single bar, reportedly to manage more than 10,000 calls a day (Carroll & Swartz, 1987), because Teletel places almost no restrictions on the entry of service vendors; (c) a combination of tariff and free services, depending on the nature of information services provided or requested, some are charged to the called party, some to the calling party, and some free; and (d) Long distance calls charged on the basis of time instead of distance. Because of the lion's share of the nation's advertising revenue has gone to newspapers all these years and the most lucrative newspaper revenue is from classified ads, newspapers eventually must move into the advertising database systems or lose most of their classified ad revenue.

The development of advertising database system logically may be divided into six stages: (a) classified ads limited to cars, houses, and jobs; (b) classified ads of all categories; (c) word-only retail ads; (d) retail ads with color pictures and graphics; (e) on-demand ads; and (f) on-demand commercials. All hardware and software are already in place for the first four stages. Blueprints from many existing database systems can be adopted for the first stage to develop a classification system based upon classified ads appearing in major newspapers. The second stage can be

easily initiated as it would involve only the expansion of the first stage. Likewise, the third and fourth stages are simply the enhancement of the preceding stages. The development of the last two stages must wait until fiber optic networks are installed, digitization refined, and memory storage vastly amplified. Fiber optic transmission theoretically carries 10,000 times more information than the copper wire. Digitization permits audiovisual information to be stored, edited, changed, programmed, and transmitted in bulk and retrieved randomly. In addition to a gigantic memory, both are necessary conditions for on-demand commercials.

When all ISDN are in place, many comprehensive ACDS will eventually change the whole concept and operation of advertising. It is imperative to study at a deliberate speed the consequences and ramifications of new advertising, including the creation of new professions and new jobs. All advertising operations will be directly affected as well because ACDS are the ultimate rifle approach. Users are those who seek product and service information, instead of those who might be by chance exposed to advertising. This alone may precipitate the complete revision of advertising practices and also modify concepts about market segmentation, product positioning, and even consumer psychology.

Based on the French Teletel and British Prestel systems, a few detectable trends can be seen. First, a large number of major corporations which have installed and experimented with in-house videotex systems will offer product information or advertising to the public--no more than an expansion of the existing toll-free 800 WATS. In addition to advertising, corporation videotex services (CVS) can respond to customer inquiries, take customer orders, bill customers for services rendered, and even send electronic mail. Likely, large corporations with huge resources will be the first to offer such services. Second, most of the electronic advertisements due to the improved on-screen graphics will be both classified (text only) and retail ads (color). Only on-demand commercials as we customly see have to wait their turn until fiber optic networks, ISDN, and HACEES have moved to a higher plateau. Third, in the beginning, all CVS will be product-specific, that is, a system will handle a specific line of products, mostly major products such as automobiles, appliances, designer dresses, industrial merchandises, and houses. Fourth, CVS will provide information only on house-brand products and services; therefore, comparative shopping must be prepared by a third party who can provide the public with comparative features, prices, terms, interests, and others. Then, use of HACEES, ACDS, and CVS through global ISDN eventually will be as common as use of POTS.

IV. The Marriage between News and Advertising and the Probable Wedding between Print and Broadcast Media

Because of the development in the computer-to-plate processes, computer-to-electronic publishing, and ACDS, two integration processes can be anticipated long before they are in the final stage of development: news and advertising integration as well as print and broadcast media integration. Electronic editing/publishing, a huge database system itself, can automatically include advertising databases. The reverse is also true: An ACDS in its evolution must provide other information such as news in addition to ads and commercials to broaden its service and appeal. The marriage is a natural consequence in the future evolution of media and advertising. Look at the offerings of the SOURCE and COMPUSERVE, the marriage has already been consummated in both appearance and substance. Nevertheless, it is NOT the replacement of either news or advertising media, but the supplement of advertising and news to each other.

So far no major player in media, computer manufacturing, or retailing is staying out of the database venture. While many are installing in-house videotex, some are toiling to launch a nationwide videotex service. It is still a long way to the promised land--a videotex system which can satisfy random demands from many users. Providing on-demand ads or programs requires fiber optic for faster access to more data and also digitization for reducing the cost of transmission and for allowing random access.

One may indeed envision one day a fifth generation mainframe computer with a trillion gigabyte memory to handle thousands of requests through global ISDN showing a variety of programs and providing a host of on-demand information, "Gone with the Wind," either the movie or the book, any episode of "Dallas," or information about all foreign cars. ISDN is the 20th century Rome to which all communication new media lead. Such a system, when perfected, is in fact a combined service of print and broadcast media. The marriage, the eventual integration of print and broadcast media, portends significant implications to communication industries and education. Its ramified consequences, even when all the chips are in, can only be speculated.

Because of its portability, inexpensiveness, simplicity, and flexibility, a newspaper or a magazine still will have its legitimate place under the sun. The erosion of advertising revenue for the established media may not be significant in the beginning, because videotex may gain advertising revenue not at the expense of established media, despite that full-fledged videotex systems may eventually

replace many functions of the established media. Admittedly, both integrations are at present speculative; thus, studying the possible marriages has limited objectives, that is, to explore the feasibility of the integration, and to project logically the probable consequences before they emerge.

As various markets for videotex are beginning to shape up, it is prudent to predict what is in store for the advertising discipline and profession. Innovative newspapers, TV networks, system developers, major telephone operators, computer manufacturers, cable and database operators should be monitored on a continuous basis in order to ascertain all developmental efforts of videotex systems. Based on the projection on the computer penetration of households, it might not be until the year 2000 before such a system in this country is popularized in the absence of government support. The long period of waiting is not due to technical difficulties as all technologies are already in place, but traceable to costs, user's sophistication, and lack of government commitment.

The integration of news and advertising and the marriage of print and broadcast media are the natural offspring of electronic news publishing and advertising database systems. Eventually, commercials, advertisements, TV programs, and news may be integrated as the results of digitization of audiovisual information (including the voice reader or talk-writer, and the optical scanner or page reader) and fiber optic networks to dovetail HACEES. As databases and videotex systems develop and overlap, there will be many new professions. There likely will be advertisers, information providers, packagers, database and videotex operators, transmitters, distributors, services vendors, and users.

V. Conclusion

This paper is a thumbnail sketch to explore advertising in the new-tech environment and its future. The areas examined include electronic publishing, advertising database systems, news-advertising and print-broadcast media integration, and their seminal effects on advertising and advertising professions. It is encouraging to note that the French Teletel system needs only four years to expand its services to all major industrialized nations, in addition to Brazil, Argentina, and a few Middle East and African countries. Now Japan has almost completed its optical fiber wiring of the whole nation, Singapore successfully experimented its ISDN, and Britain refined its videotex and teletex systems to offer a variety of services. All these are impetuses no less significant than the sputnik in 1957 to compel the United States to pursue a crash program: A nationwide ISDN and a HACEES in every home, just like a chicken in every

pot, will come sooner than we expected. Then there will be new media, new advertising, and new professionals in the world of tomorrow--a future traumatic to some but exhilarating to many.

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